

# Weekly report

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FANGYI GUO

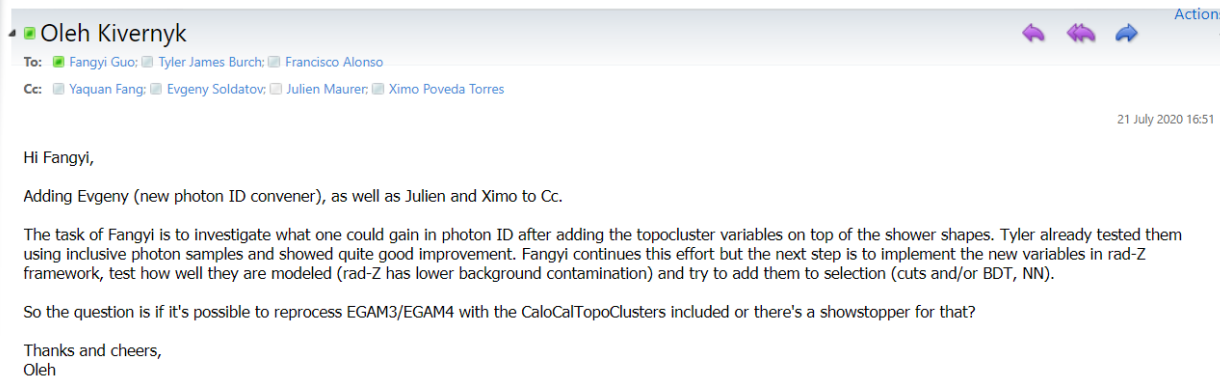
# Working status

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## Not much progress

- VBF HCP: confusing about the 2D fit
  - The difference between 1D and 2D mathematically.
  - How to define the sensitivity and how to use high sensitivity region.
  - How to optimize the 1D binning.
- QT: shall I push the conveners?

### Looking for samples with TopoCluster variable



The screenshot shows an email interface. At the top, the subject is "Looking for samples with TopoCluster variable". The sender is Oleh Kivernyk. The email body contains the following text:

Hi Fangyi,

Adding Evgeny (new photon ID convener), as well as Julien and Ximo to Cc.

The task of Fangyi is to investigate what one could gain in photon ID after adding the topocluster variables on top of the shower shapes. Tyler already tested them using inclusive photon samples and showed quite good improvement. Fangyi continues this effort but the next step is to implement the new variables in rad-Z framework, test how well they are modeled (rad-Z has lower background contamination) and try to add them to selection (cuts and/or BDT, NN).

So the question is if it's possible to reprocess EGAM3/EGAM4 with the CaloCalTopoClusters included or there's a showstopper for that?

Thanks and cheers,  
Oleh

- Shift: Finished 10 + JIRA ticket. Maybe need 1 or 2 times more.